STRETCHLEARN · WORKBOOK

Inflammation & Immune Health — Workbook

This workbook translates the course content into structured activities, self-assessments, and tracking tools. Work through each section alongside the corresponding course module to ground the science in your own lifestyle data. Every exercise is designed to produce a concrete output you can act on immediately.

The Biology of Inflammation and Immunity

Anchor your understanding of the inflammatory cascade and immune branches to real patterns in your own health history.

Exercise: Personal Inflammation Symptom Audit

Review the past 12 months and answer the prompts below. The goal is to identify patterns that may reflect chronic low-grade inflammation, not to diagnose anything. Use your honest recollections — accuracy matters more than optimism.

• List any recurring symptoms you experience (fatigue after full sleep, joint stiffness, brain fog, bloating, skin flares, frequent colds) and estimate their frequency per month.

• Have you had any bloodwork in the last 2 years? Note any results for CRP, ESR, white blood cell count, or fasting glucose — and whether they were in range.

• Identify 2–3 periods in the past year when you felt your immune system was under stress (illness, major stress event, sleep disruption). What lifestyle factors were present in the weeks before each episode?

• Based on the course's distinction between acute and chronic inflammation, which type do you suspect is more relevant to your current health? What evidence from your symptoms leads you there?

Worksheet: Immune System Mental Model Map

Without referring to the course, fill in each field below from memory. Then review your answers against the course content and correct any gaps. This retrieval practice strengthens retention.

Three cell types in the innate immune system and their primary role

Two cell types in the adaptive immune system and what distinguishes them

The name of the master inflammatory transcription factor (NF-__)

Two pro-inflammatory cytokines and one condition they are elevated in

What SPMs stand for and why omega-3 intake affects them

One lifestyle factor that impairs NK cell activity (from the course)

Checklist: Acute vs Chronic Inflammation — Knowledge Check

[ ] I can name the five cardinal signs of acute inflammation
[ ] I understand why chronic inflammation often has no obvious symptoms
[ ] I know the hs-CRP range that indicates elevated cardiovascular inflammatory risk (above 3.0 mg/L)
[ ] I can explain why the resolution of inflammation is an active process, not just the absence of activation
[ ] I understand the concept of the resolution deficit and can explain it in plain language
[ ] I can name at least three major conditions linked to chronic low-grade inflammation

Food as Immune Information

Apply the nutritional framework from Module 2 to your current eating patterns and identify specific, measurable food changes with the highest anti-inflammatory ROI.

Exercise: 3-Day Food Diary + DII Self-Score

Record everything you eat and drink for 3 consecutive days (ideally 2 weekdays and 1 weekend day). After recording, score each day against the six targets below. Honesty is more useful than impression management — no one else will see this.

• For each day, count how many distinct plant foods you ate (every different vegetable, fruit, legume, nut, seed, herb, or grain counts as one). Write the total. Target: 10+ per day, 30+ per week.

• How many grams of dietary fibre did each day contain? Use a free tool like Cronometer or MyFitnessPal to estimate. Target: 30+ g/day. What were the top 3 fibre sources?

• How many omega-3-rich marine servings did you have across the 3 days (salmon, sardines, mackerel, herring, anchovies, oysters)? Target: at least 2 serves across 3 days.

• Estimate what percentage of your daily calories came from NOVA Group 4 ultra-processed foods (packaged snacks, fast food, soft drinks, reconstituted meat products). Target: below 20%.

Worksheet: Anti-Inflammatory Meal Upgrade Plan

Choose 5 meals or snacks from your current rotation that score poorly on omega-3, fibre, or polyphenol content. For each, write the current version and a specific, realistic upgrade that maintains palatability.

Meal 1 — current version

Meal 1 — upgraded version and specific anti-inflammatory improvement

Meal 2 — current version

Meal 2 — upgraded version and specific anti-inflammatory improvement

Meal 3 — current version

Meal 3 — upgraded version and specific anti-inflammatory improvement

Meal 4 — current version

Meal 4 — upgraded version and specific anti-inflammatory improvement

Meal 5 — current version

Meal 5 — upgraded version and specific anti-inflammatory improvement

Which one upgrade will you make this week? (commit to a specific day and meal)

Checklist: Weekly Anti-Inflammatory Nutrition Habits

[ ] Include fatty fish (salmon, sardines, mackerel, herring) at least 2 times this week
[ ] Eat at least 30 different plant foods across the week (track on a tally sheet)
[ ] Use extra-virgin olive oil as the primary cooking and dressing fat
[ ] Include at least one polyphenol-rich food daily (berries, dark leafy greens, green tea, turmeric)
[ ] Estimate and record daily fibre intake at least 3 days this week
[ ] Avoid or minimise seed oils (corn, soybean, sunflower) when choosing packaged foods or restaurants
[ ] Pair each high-carbohydrate meal with protein, fat, and fibre to blunt glycaemic response

Exercise: Gut Health Baseline Reflection

Answer the questions below to assess your gut-immune axis status. These are educational self-reflection prompts, not clinical assessments.

• Describe your typical bowel regularity and stool consistency on the Bristol Stool Scale (1–7). What does your pattern suggest about transit time and fibre adequacy?

• Do you currently consume any fermented foods (yogurt, kefir, sauerkraut, kimchi, miso, tempeh)? How often? What one fermented food could you realistically add to your weekly diet?

• Have you ever taken a prolonged course of antibiotics? If so, did you notice any changes to digestion, energy, or immune resilience afterward, and did you attempt to restore microbiome diversity?

Sleep, Stress, and the Immune Clock

Measure your current sleep and stress baseline against the evidence-based benchmarks from Module 3 and build a targeted improvement plan for your weakest pillar.

Exercise: 2-Week Sleep Audit

Complete the fields below for each night over 2 weeks using a simple journal or spreadsheet. After 14 days, calculate averages and review your consistency. You will use this data in Module 4 to set your sleep protocol target.

• Record your bed time, estimated time to fall asleep, any wake episodes during the night, and wake time for each of the 14 nights. Calculate your average total sleep time.

• Rate each night's sleep quality on a scale of 1 (terrible) to 10 (excellent). After 14 days, identify the 3 nights with the lowest scores — what did the previous day have in common (late caffeine, screens, alcohol, late exercise, high stress)?

• Calculate your social jet lag: the difference in minutes between your average weekday wake time and your average weekend wake time. Target: under 30 minutes. What is yours?

• Complete the Insomnia Severity Index (ISI) free online. Record your score (0–28). Score above 14 warrants discussion with a GP or sleep specialist.

Worksheet: Cortisol Pattern and Stress Load Assessment

Complete each field honestly. Use this as a starting point, not a clinical diagnosis.

PSS-10 score (complete the validated questionnaire online — takes 2 minutes)

Your 3 primary chronic stressors right now (work, financial, relational, health, etc.)

Morning energy level on average (1–10) and whether it has changed over the past 6 months

Current stress regulation practices and average weekly minutes spent on each

One new stress regulation technique from the course you will trial for 2 weeks and how you will schedule it

Do you have a flat or reversed cortisol pattern (low energy in the morning, wired at night)? Describe your typical energy arc through the day

Checklist: Sleep Hygiene Implementation Checklist

[ ] Set a consistent wake time and hold it within 30 minutes every day including weekends
[ ] Keep bedroom temperature between 16–19°C (62–67°F)
[ ] No screens or bright overhead lighting within 90 minutes of bed time
[ ] Avoid caffeine after 1–2 pm (or 10 hours before target sleep time)
[ ] Avoid alcohol in the 3 hours before bed
[ ] Get natural morning light within 60 minutes of waking (10–20 min outside or by a bright window)
[ ] Track total sleep time for at least 7 consecutive days to establish your true baseline

Building Your Anti-Inflammatory Lifestyle Protocol

Synthesise your assessments from the previous sections into a concrete, personalised 8-week protocol with measurable targets and a built-in review checkpoint.

Worksheet: Personalised Anti-Inflammatory Protocol Builder

Use your baseline assessment data from Sections 1–3 to complete each field. Be specific — vague goals do not produce measurable outcomes. This is your living protocol document; update it after your 8-week review.
Current hs-CRP level (if known) or estimated inflammatory risk based on symptom audit

Highest-priority pillar for improvement based on your audits (nutrition / sleep / movement / stress) and your reasoning

Specific nutrition change #1 with measurable target (e.g. eat fatty fish 2x/week, add 10g fibre/day via lentils)

Specific nutrition change #2 with measurable target

Sleep target: consistent bed time, consistent wake time, and target total sleep hours

Weekly movement plan: days, activity type, duration, and intensity for aerobic and resistance sessions

Weekly stress regulation practice: technique chosen, frequency, and scheduled time slot

Two subjective metrics you will track weekly (morning energy 1–10, sleep quality 1–10, etc.)

Biomarker retest plan: which tests, approximate date (8–12 weeks from start), and who will order them

One potential obstacle to adherence and your pre-planned response to it

Exercise: Supplement Audit

Review your current supplement regimen against the evidence hierarchy from the course and answer the prompts below.

• List every supplement you currently take (name, dose, frequency). For each, classify it as: strong evidence for immune/anti-inflammatory benefit, weak/inconsistent evidence, or no evidence relevant to inflammation.

• Based on the course's high-evidence shortlist (Vitamin D3, omega-3, magnesium, zinc), are you deficient or below optimal in any of these? What specific tests would confirm this and have you had them?

• Are there any supplements you are taking primarily because of marketing or anecdote rather than evidence? What would you remove, reduce, or replace based on what you have learned?

Checklist: 8-Week Protocol Launch Checklist

[ ] Written protocol completed with specific targets for all four pillars
[ ] Baseline biomarker results recorded (or appointment booked to obtain them)
[ ] Weekly tracking system set up (spreadsheet, app, or paper journal)
[ ] First grocery shop planned to stock anti-inflammatory staples (fatty fish, leafy greens, legumes, olive oil, berries)
[ ] Sleep schedule set and phone alarm configured for consistent wake time
[ ] First week of exercise sessions scheduled in calendar with specific times
[ ] Stress regulation practice added to daily schedule with a recurring reminder
[ ] Social connection: at least one meal or activity with supportive people planned this week
[ ] 8-week review date scheduled with biomarker retest booking or reminder
[ ] One red flag symptom identified that would prompt me to see a GP rather than self-manage

Your Action Plan

1. Complete the Personal Inflammation Symptom Audit (Section 1) before finishing Module 1 — use it to frame all subsequent modules with your own health context
2. Book a blood test with your GP for hs-CRP, fasting insulin, HbA1c, vitamin D (25-OH-D), and a lipid panel before starting your protocol — you need a baseline to measure progress against
3. Run a 3-day food diary and score it against the six anti-inflammatory benchmarks (plant diversity, fibre, omega-3, ultra-processed %) to identify your highest-leverage dietary change
4. Start a 2-week sleep journal (bed time, wake time, quality score) immediately — sleep data collected now will inform your protocol before you even finish the course
5. Choose one high-evidence nutritional upgrade this week (add 2 fatty fish servings, increase fibre to 30 g/day, or replace seed oil with olive oil) and implement it before adding others — sequence beats overwhelm
6. Complete the PSS-10 stress scale online this week, record your score, and identify your top 3 chronic stressors — this takes 5 minutes and anchors your stress module work
7. Pick one stress regulation technique from Module 3 (diaphragmatic breathing, physiological sigh, 10 min mindfulness, or daily walk) and commit to it daily for 14 days before evaluating effectiveness
8. Design your weekly movement skeleton (which days, what activity, what duration) using the evidence-based template from Module 4 and book the sessions in your calendar before the week begins

9. Set a consistent wake time and hold it every day including weekends for 3 weeks — this single change has a larger positive impact on circadian immune rhythm than any supplement
10. Schedule an 8-week protocol review: re-run your four-pillar audit, retest biomarkers, and update your protocol document based on what is and is not working